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# Laughing Matters: Investigating the relationship between humor, personality, and social relations.

Bachelor's thesis in Psychology

Supervisor: Wei Wang

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Faculty of Social and Educational Sciences  
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Candidate: 10117

Bachelor Thesis in Psychology - PSY2900

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Project leader: Wei Wang

Supervisor: Per Helge Haakstad Larsen

## **PREFACE**

I want to express my sincere thanks and gratitude to the student-assistant, Vegard Litlabø on the project, who made the research question possible to examine, with distributing the Social Relations Frequency Scale. Furthermore, I want to thank Vegard for extortionary help through the process, with discussions and help in choosing research question and statistical analysis.

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## **ABSTRACT**

Humor and personality have shown to be related to social relations, however it is not investigated how humor and personality influence frequency of social relations. Higher frequency of social interactions is associated with greater well-being and feeling of belonging. The present study aimed to investigate the relationship between personality and humor, and how this effects frequency of social interactions. In an online questionnaire, the Humor Styles Questionnaire (Martin et al., 2003), the Zuckerman-Kuhlman-Aluja Personality Questionnaire-Short form (Aluja et al., 2018) and the unpublished Social Relations Frequency Scale, by Litlabø, 2023, were administered to a Norwegian sample. With a correlation analysis, it was found that self-enhancing and affiliative humor was associated with higher frequency of social interactions. Furthermore, extraversion was associated with higher frequency, and neuroticism was associated with lower frequency of social interactions. The regression analysis suggest that personality, and especially extraversion predict social relations. Aggressive humor was the only humor style predicting social relations. The correlation analysis was in accordance with previous research on the relationship between personality and humor, and the regression analysis provided new insight on how humor and personality predict frequency of social interactions. It is discussed that humor-styles can't be distinguished as solely positive or negative, as the context must be taken into consideration. Further research is recommended to control for social interaction satisfaction, and examine which context humor is produced, to further understand humor as a social strategy.

*Key words:* Social relations, Humor, Personality

## INTRODUCTION

Humor is an important aspect of social interactions, which can be used to establish and maintain relationships (Martin et al., 2003). Although humor is not considered a specific personality trait, it can be argued that it is a part of an individual's personality (Hehl & Ruch, 1985). Descriptions of a person's personality often include whether they are humorous, which aligns with the definition of personality. Personality is defined as "The enduring configuration of characteristics and behavior that comprises an individual's unique adjustment to life, including major traits, interests, drives, values, self-concepts, abilities, and emotional patterns" (American Psychological Association, 2023). Humor can be seen as an adjustment to life, ability, and emotional pattern. Personality will affect how you socialize and your motivation for it (Lucas & Diener, 2000). Therefore, both personality and humor can be considered as aspects that influence social relations.

Previous research has primarily focused on the relationship between humor, personality, and the *quality* of social relations. Both quality and quantity are related to greater well-being and mental health (Sun & Harris, 2020). Additionally, higher frequency of socialization even with unfamiliar individuals, leads to positive emotions and feeling of belonging (Sandstrom & Dunn, 2014). Little is known about how humor affect the frequency of social interactions. Considering the positive effects of greater frequency of social interactions, this is an interesting topic to examine. Further knowledge about the relationship between personality, humor and frequency of social interactions will give insight into a relatively under-researched topic.

It is well established that humor-styles and personality are associated (Čekrija et al., 2022 ; Mendiburo-Seguel et al., 2015), additionally being related to social relations (Lucas & Diener, 2000 ; Martin et al., 2003 ; Shiota et al., 2004). This study will attempt to further examine this relationship. By identifying how social interactions are associated with different

humor styles and personality traits, this study may help improve the understanding of strategies for interpersonal relations. This study hypothesizes that different personality traits and humor-styles will have different outcomes on social relationships. This can possibly be explained by differences in individual goals and strategies towards social interactions.

## **HUMOR**

Humor is a broad term that represents everything people say or do that is perceived as funny or makes them laugh. This includes the mental process of forming and perceiving humor, as well as the emotional response to it (Martin & Ford 2018, p. 3). The psychological functions of humor can be categorized to three broad categories: (1) emotional and intrapersonal benefits, (2) tension and relief coping, and (3) social functions (Martin & Ford, p. 24). The emotional benefits of humor include the ability to enhance positive emotions. Furthermore, the ability to enhance own positive emotions, could have an impact on interpersonal functions. Michelle Shiota and colleagues stated that humans are social animals that require close relationships, and that positive emotions plays a crucial role in identifying possible relations, and enhancing and maintaining social relations (Shiota et al., 2004). The coping mechanism of humor include laughing at difficult situations and contributing to resilience (Martin & Ford, p. 27). However, this strategy often bears aspects of both intrapersonal and interpersonal aspects, where it can be directed at group functioning and minimize group tension. The third function can therefore be considered a broad term, where it can be used to enhance relations, minimize conflict, and facilitate group functions (Martin & Ford, 2018).

As stated earlier, the intrapersonal and interpersonal functions of humor affect each other. However, the creation of four humor-styles includes a distinction between intrapersonal and interpersonal humor, which involves using humor to promote oneself or promote

relationships with others (Martin et al., 2003). It is identified four specific humor-styles where two are intended to enhance relationships with others, communicate differences and similarities, and increase one's attractiveness in social situations (Martin et al., 2003). Two humor styles are considered intrapersonal functions, where it is an emotion regulation strategy, can reduce stress, and help to have an optimistic outlook on life (Martin et al., 2003). It is however suggested that humor's greatest function, is to form relationships with others and regulate interpersonal relationships (Martin & Ford, 2018, p. 202). Based on humors interpersonal function, it is predicted that humor will predict social relations in this study. As stated earlier, the intrapersonal humor-styles can additionally be directed as an interpersonal strategy (Shiota et al., 2004), making all four humor-styles a possible explanation for the variance in social interactions.

Martin and colleagues named the humor styles as: affiliative, aggressive, self-enhancing and self-defeating humor. An individual who uses affiliative humor is inclined to engage in storytelling and joke-telling with the aim of entertaining others and enhance positive emotions in others. Affiliative humor has been found to foster social relationships and diminish inter-personal tensions (Martin et al., 2003). Aggressive humor involves humor that can be manipulative and have a negative impact on the recipient. Individuals with this humor-style tend to have difficulties to resist saying things that may hurt others (Martin et al., 2003). Self-defeating humor involves speaking negatively about oneself in a humorous way. This also involves allowing others to make fun of oneself or be laughed at (Martin et al., 2003). Self-enhancing humor tend to have a humorous view on life and uses humor to reduce stress and negative emotions. In comparison to affiliative and aggressive humor, the latter humor styles are thought to mainly be an intrapersonal mechanism (Martin et al., 2003).

As previously mentioned, humor can be categorized based on the intention to promote relationships with others and promote oneself. Additionally, it can be classified as either

positive or negative, with the former being perceived as harmless, and the latter as potentially harmful to oneself or others. Affiliative and self-enhancing humor are considered positive humor-styles, as they are associated with well-being, social-support, and self-esteem. Self-defeating humor is considered negative, as it is associated with anxiety, depression and negatively with well-being and self-esteem. Aggressive humor is considered negative, as it is associated with aggression and hostility (Martin et al., 2003). This is supported by numerous research, where self-enhancing and affiliative humor has the most impact on well-being (Dyck & Holtzmann, 2013 ; Jovanovic, 2011, Leist & Müller, 2003). However, the effect found on positive humor styles are stronger than the findings on negative humor styles. Specifically aggressive humor is not associated with depression or low self-esteem (Dyck & Holtzmann, 2013 ; Martin et al., 2003). According to Dyck and Holtzmann (2013), the findings suggest that the impact of aggressive humor on oneself and the environment may vary depending on individual differences. Self-enhancing humor, being considered an intrapersonal mechanism, is strongest associated with well-being, especially when self-defeating humor was absent (Leist & Müller, 2003).

However, the dichotomy between positive and negative humor styles may not be appropriate. Aggressive and self-defeating humor may serve as effective strategies, for example, in negotiating one's position within a group (Leist & Müller, 2003). Additionally, it has been argued that even positive humor styles, like affiliative humor, may bear aggressive aspects (Martin et al., 2003). Furthermore, the perception of aggressive humor, is different from face-to-face interactions, and digital communication. Research shows that the communicators intentions are less clear in digital communication, making the interpretation of the humor harmful or benign less clear (Steer et al., 2020). The distinctions between intrapersonal versus interpersonal and positive versus negative, have been debated, as they may not be too different constructs (Ruch & Heintz, 2013). For example, self-defeating

humor is in accordance with “laughing at yourself”, which in self-enhancing humor is considered positive (Ruch & Heintz, 2013). Additionally, Leist and Müller emphasize that humor styles are moderately but not too highly correlated, which indicates that individuals may vary in combinations of the humor-styles (Leist & Müller, 2003). This view on the humor-styles is supported by Galloway, where personality may motivate for different combinations of humor (Galloway, 2010). The HSQ instrument does not consider in which context the humor is produced. The social setting and the emotional state are relevant for if the humor is considered benign or harmful (Ruch & Heintz, 2013). The type of humor used may be according to the situation, recipient, and desired outcome. Therefore, personality plays a crucial role in determining the desired outcome of use of humor.

## **PERSONALITY**

Personality is a complex construct that has been examined across various fields of psychology. It refers to the enduring patterns of thoughts, feelings, and behavior that shape an individual’s adjustment to life. American Psychological Association defines personality as: “The enduring configuration of characteristics and behavior that comprises an individual’s unique adjustment to life, including major traits, interest, drives, values, self-concepts, abilities, and emotional patterns” (American Psychological Association, 2023). The definition highlights the complexity of personality, and how it could be linked to several psychological mechanisms.

To assess personality, the *Zuckerman-Kuhlman-Aluja Personality Questionnaire-Short Form (ZKA-PQ/SF)*, was employed in this study (Aluja et al., 2018). Zuckerman stated that personality theories should have a biological basis (Zuckerman et al., 1993). Furthermore, Zuckerman argued that while our understanding of the biological foundations of personality is not exhaustive, we have a greater level of understanding with regards to certain traits. Notably

extraversion, neuroticism and psychoticism from Eysenck's model, and sensation seeking from Zuckerman have been more extensively linked to biological factors, compared to conscientiousness, agreeableness, and openness to experience from NEO-PI-R (Zuckerman et al., 1993).

ZKA-PQ/SF includes the traits extraversion, aggression, activity, neuroticism, and sensation seeking (Aluja et al., 2018). Originally the traits were defined in ZKPQ (Zuckerman et al., 1993). Extraversion originally named sociability, involves the preference for being alone or seeking social interactions (Zuckerman et al., 1993). Extraversion is considered to be sensitive to reward and experiencing more positive emotions (Lucas & Diener, 2000). The sub-facets include positive emotions, social warmth, exhibitionism, and sociability.

Aggression involves being impatient with others and having a quick temper. The sub-facets include physical aggression, verbal aggression, anger, and hostility (Zuckerman et al., 1993, p. 759). Activity is described as restlessness and need for an active life, with preference for challenging tasks. The sub-facets are work compulsion, general activity, restlessness, and work energy. Neuroticism involves general tendency for negative emotions and sensitivity for criticism. The sub-facets are anxiety, depression, dependence, and low self-esteem. Sensation seeking involves a lack of planning and tendency to act impulsively, and willingness to take risk of the sake of excitement (Zuckerman et al., 1993). The sub facets include thrill and adventure seeking, experience seeking, disinhibition, boredom/impulsivity.

Most of the research examining the relationship between personality, humor and social relationships is based on NEO-PI-R by Costa and McCrae. Where only one article has examined the relationship between ZKA-PQ and HSQ (Čekrljija et al., 2022). Therefore, it is relevant to examine the similarities and differences between NEO-PI-R and ZKA-PQ.

Extraversion from ZKA-PQ is highly correlated with extraversion from NEO-PI-R (García et al., 2012, p. 158). Neuroticism is also highly correlated between the two instruments.

However, the sub-facet impulsivity in NEO-PI-R is more correlated with aggression in ZKA-PQ. Aggression was negatively correlated with agreeableness, indicating that they measure the same construct, but on the opposite side of the continuum. There was not a correlation between sensation seeking and openness to experience, however the facet of adventurousness in extraversion from NEO-PI-R correlated with sensation seeking. Activity was highly correlated with the NEO-PI-R conscientiousness (García et al., 2012).

A meta-study examined the relationship between personality traits and humor-styles, however it did not include any studies using the ZKA-PQ instrument. The analysis did however indicate that personality traits and humor-styles are closely related (Mendiburo-Seguel et al., 2015). Extraversion was positively strongly related to affiliative humor, and moderately related to self-enhancing humor. This is consistent with extraverts having a tendency for positive emotions, especially in social interactions (Mendiburo-Seguel et al., 2015). The relationship between affiliative humor and extraversion is well-established and is therefore expected in this study. Neuroticism was mildly positively related to self-defeating humor, and negatively to self-enhancing humor. The relationship is plausible as individuals who score high on neuroticism tend to experience negative emotions, and self-defeating humor can be regarded as a coping mechanism. Agreeableness was negatively related to aggressive humor. In this study it is expected that aggressiveness, as the opposite of agreeableness, is positively related to aggressive humor. Overall, the meta-analysis highlights the robust relationship between extraversion and affiliative humor across different studies, with the remaining correlations additionally showing clear associations (Mendiburo-Seguel et al., 2015).

The only article examining the relationship between HSQ and ZKA-PQ, showed similar results as the meta-study (Čekrljija et al., 2022). Extraversion was strongest correlated to affiliative humor. In addition, extraversion was correlated to self-enhancing humor, making

the trait correlated to both positive humor-styles. The association between affiliative and the positive humor styles, is expected in this study. Neuroticism was in accordance with previous research, related to self-defeating humor, and negatively to self-enhancing humor. The relationship between neuroticism and self-defeating humor is expected in this study.

Sensation seeking was positively correlated to all four humor-styles. It has been suggested that humor is a form of social risk taking, making this relationship plausible, where sensation-seeking additionally is related to risk taking (Kennison & Messer, 2019). Aggression was positively correlated with aggressive humor, and negatively to self-enhancing humor.

Considering the similarities of sub-facets in aggression and aggressive humor, this finding is not surprising. Surprisingly activity was positively correlated to both self-enhancing humor and self-defeating humor. The correlation seems counterintuitive, and the article does not state a definitive answer to this relationship (Čekrljija et al., 2022). Overall, the results of the meta-study examining multiple five-factor instruments of personality, is consistent with the empirical evidence on ZKA-PQ and HSQ.

One important aspect of personality is the need for social contact. Extraversion can be seen as a continuum, where the most important factor is diversity of sociability. Sociability refers to an individual's preference for being alone, and enjoyment of social activities (Lucas & Diener, 2000, p. 453). Lucas & Diener proposed that extraverts are more sensitive to reward in social interactions, and therefore seek this more than introverts (Lucas & Diener, 2000, p. 455). However, extraverts find more amusement in all rewarding situations, regardless of if they are social or not (Lucas & Diener, 2000). This is supported by other research where extraverts tend to feel joy and positive emotions, is linked to sensitivity to reward (DeYoung, 2015). Since personality is crucial in determination for need for social contact, it is interesting to examine if the humor-styles predict social relations after controlling for personality traits.

## SOCIAL RELATIONS

Several studies have highlighted the positive effect of socialization, particularly emphasizing the importance of quality socialization. For instance, research shows that social support leads to better mental health and general well-being (Cohen 2004 ; Hefner & Eisenberg, 2009). However, research has additionally shown that students who interact more frequently with their classmates experience higher levels of well-being and sense of belonging (Sandstrom & Dunn, 2014). The study also examined the effects of socialization with “weak ties”, people you do not have a strong connection with. The results show greater happiness on days the students interacted with more weak ties. Additionally, community members happiness increased with higher frequency of interactions with weak ties, where the interactions were associated with greater feeling of belonging (Sandstrom & Dunn, 2014). This implies that the frequency of social interactions also influences general well-being. Furthermore, a study examining the effect of frequency of different social interactions in older adults, found that higher frequencies were associated with positive emotions, such as feeling happy, relaxed, proud, and inspired (Macdonald et al., 2021). Individuals who engaged in more face-to-face interactions than their average, showed positive effects, and less loneliness. Conversely digital interactions did not appear to be related to positive or negative effects, nor did they affect feelings of loneliness (Macdonald et al., 2021).

It is however a debate if frequency of social interactions has positive effects, compared to quality aspects of socialization. A study compared effects from quantity and quality in socialization, where quantity was found strongly associated with well-being. People who reported greater well-being after social interactions, did however report quality aspects of socialization, like deeper conversations and more self-disclosure (Sun & Harris, 2020). The study highlights that both quantity and quality is beneficial, but quality leads go greater well-being. Furthermore, humor styles have been linked to quality aspects of socialization, where

affiliative humor is associated with social intimacy, and self-enhancing humor being linked to both social intimacy and social support (Martin et al., 2003). There is no research on whether the humor-styles can be linked to higher frequency of social interactions. However, humor can be seen as an important mechanism for socialization and communication.

Humor can be considered an important form of communication, where humor can help identifying potential connections, sustain these bonds, minimize conflict, and enhance group functioning (Martin & Ford, 2018, p. 26). Humor can additionally be used to identify shared beliefs with others, for example by observing reactions to a political joke (Ziv, 2010). It is believed that humor signals that two individuals understand each other and share common knowledge (Martin & Ford, 2018). Furthermore, humor can also be used to avoid conflict, where an individual who perceives negative sanctions on a statement can say that it was meant to be humorous (Ziv, 2010). Considering the aspects of humor mentioned, interpersonal humor can enhance interpersonal relations in many ways. It is however a discussion if humor solely is a mechanism meant for social context or for both interpersonal and intrapersonal achievements. The occurrence of laughter is more frequent in social interactions, implying that its principal role is to enhance social connections (Vettin & Todt, 2004). Even though people laugh alone, it can still be considered as “social”, where people tend to involve the imagined or implied presence of others (Martin & Ford, 2018, p. 3).

This study will use Litlabø's *Social Relations Frequency Scale (SRFS)*, an instrument designed to measure the frequency of various social interactions. The scale includes items that measure the frequency of digital interactions, meaningful conversations, interactions with family, face-to-face interactions, and conversations where you feel people show interested in what you do. While some items, such as “meaningful conversations”, may be considered a quality aspect, they are measured in terms of frequency. Since it is well-established that humor-styles are linked to several quality aspects of socialization, it is predicted that the

humor-styles additionally will influence frequency of social interactions. The SRFS instrument is inspired by questions from the Living Conditions Survey regarding social relation factors (ISungset & Lunde, 2015). Previous research has not explored the association between the frequency of social interactions, humor styles and personality. Empirical evidence finds that frequency of social interactions is linked to general well-being and positive emotions. Furthermore, the humor-styles are linked to general well-being and quality aspects of social interactions. Personality is additionally determining desires for socialization and is linked to various humor-styles. Therefore, the use of SRFS, is interesting to examine the relationship between frequency of social interactions, personality, and humor-styles.

### **THE CURRENT STUDY: HYPOTHESES AND PREDICTIONS**

Based on the empirical evidence presented in this study, two hypotheses with predictions were constructed. It is hypothesized that different humor-styles will have different outcomes on social relations. Specifically, it is predicted that positive humor-styles will be associated with more social interactions. The assumption is based on that humor reflect strategies for social relations, and the positive humor-styles being linked to positive aspects of socialization. It is assumed that humor-styles will predict social relations, after controlling for personality traits.

The study hypothesize that personality traits and humor-styles will be associated with each other. This is based on previous research where it is a clear association between personality and the use of humor. Specifically, extraversion was correlated with affiliative humor, across different studies, therefore this effect is expected in this sample. It is additionally expected a correlation between self-destructive humor and neuroticism, as this is found in previous research.

**Hypothesis 1:** Humor styles will have different outcomes on social relations.

**Prediction 1a:** Positive humor styles will have more social interactions.

**Prediction 1b:** Humor styles will predict social relationships, even after controlling for personality traits.

**Hypothesis 2:** Personality traits and humor-styles will be associated with each other.

**Prediction 2a:** Individuals who score high on extraversion will use more affiliative humor.

**Prediction 2b:** Individuals who score high on neuroticism will use more self-defeating humor.

## METHODS

### Participants

In total 420 participants responded, where one participant did not answer any of the questionnaires, and three were under the age of 18, and were therefore removed. The sample were then limited to only students, where the final sample consisted of 189 students, where 38% were male, and 62% were female. The limitation to students was done as half of the sample were students, and the remainder of the participants were too demographically diverse to be appropriately representative of the general population. The sample consisted of mostly Norwegian citizens (98%). Age ranged from 18-55 years (male:  $M = 23.59$ ,  $SD = 3.40$ ; women:  $M = 23.61$ ,  $SD = 4.37$ ). Thus, most of the participants were under the age of 27 (97%).

### Procedure

In February 2023, a questionnaire including measures of humor style, personality, passion, and social relationships was distributed. The questionnaires were translated to Norwegian by the research group. The questionnaire was developed using nettskjema.no, and

sent digitally through messaging and social media. The sample is a convenience sample, consisting of friends and acquaintances of the research group. There is no information about the response rate, as the survey has largely been distributed on social media. Participants were assured the survey was anonymous and voluntary to complete. The study was pre-approved by NSD (no. 830341).

## **Instruments**

### **Personality**

Personality was measured using *The Zuckerman-Kuhlman-Aluja Personality Questionnaire-Short Form, ZKA-PQ/SF* (Aluja et al., 2020). The scale consists of 80 items with a Likert-scale ranging from (1) disagree strongly to (4) agree strongly. For example, “I have a quick temper”, “I consider myself a serious person and have difficulties expressing feelings”, “Before I get into a new situation, I like to find out what to expect from it”. The questionnaire was developed to measure personality based on the five-factor model, including 18 cultures and 13 languages. Each factor has four sub-facets. Cross cultures, reliability measured showed good estimations. Neuroticism Cronbach’s alpha:  $\alpha = .86$ , aggression  $\alpha = .85$ , extraversion:  $\alpha = .81$ , activity:  $\alpha = .79$ , and sensation-seeking:  $\alpha = .77$ . All factors had a reliability measure above .70, except Senegal and Togo (Aluja et al, 2020).

In our sample the reliability measures are overall quite consistent with previous measures. Cronbach’s alpha for aggression:  $\alpha = .74$ , sensation-seeking:  $\alpha = .57$ , activity:  $\alpha = .69$ , extraversion,  $\alpha = .76$ , neuroticism,  $\alpha = .80$ .

### **Humor-style**

Humor style was measured using the *Humor Styles Questionnaire (HSQ)*, consisting of 32 items with a Likert-scale ranging from totally disagree (1) to totally agree (7) (Martin et al., 2003). For example, “If I am feeling depressed, “I can usually cheer myself up with

humor”, “People are never offended or hurt by my sense of humor”, “Letting others laugh at me is my way of keeping my friends and family in good spirits”. The questionnaire measures four humor styles, including affiliative humor, self-enhancing humor, aggressive humor, and self-defeating humor. Reliability measures are presented using Cronbach’s alpha, affiliative humor:  $\alpha = .80$ , self-enhancing humor:  $\alpha = .81$ , aggressive humor:  $\alpha = .77$ , self-defeating humor:  $\alpha = .80$  (Martin et al., 2003).

In our sample the reliability measures were quite consistent with previous measures. Affiliative humor:  $\alpha = .83$ , self-enhancing humor:  $\alpha = .84$ , aggressive humor:  $\alpha = .70$ , self-destructive humor:  $\alpha = .81$ .

### **Social relations**

Social relations were measured using a questionnaire developed by Litlabø in 2023 for his master thesis. *Social Relation Frequency Scale (SRFS)* consists of 6 items with a Likert scale ranging from “not in the last year” to “daily”. The scale was inspired from the Living Conditions Survey regarding social relation factors (ISungset & Lunde, 2015). The questionnaire consists of 3 items related to quality and 3 items related to quantity. Thus, all items measure frequencies of social interactions. For example, “How often do you meet friends face-to-face?”, “How often do close relationships show interest in what you do?”, and “How often do you have contact with friends via phone, social media, or similar?”. The questionnaire has not been validated or used in previous research. Social relationships had acceptable reliability measures in our sample,  $\alpha = .68$ .

## **STATISTICS**

To examine the effects of humor styles and personality on each other and on social relationships, a correlation analysis and hierarchical regression were conducted. A non-

parametric correlation analysis was chosen, as several of the test variables were not normally distributed. Assumptions for the analyses were tested to determine the generalizability and estimates of the results.

Normality of the residuals was assessed visually using Q-Q plot, showing a good fit to the line. Linearity was inspected visually by examining scatter plot. Normality was examined using Komologorov-Smirnov and histogram. The analysis showed that self-enhancing and affiliative humor, extraversion, aggression, and social relations were not normally distributed, which must be taken into consideration in the interpretation of the results. Multicollinearity was tested using variance inflation factor (VIF). On average, most residuals were at 1, with the highest value at 2. These values can be considered acceptable (Field, 2018, p. 402). Homoscedasticity was examined through residual plots, where the assumptions were met.

## RESULTS

**Table 1***Descriptive statistics and Spearmans Correlations for test variables (N = 189)*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9
1. NE	2.55	0.53	-								
2. EX	3.20	0.47	-.29**	-							
3. SS	2.72	0.43	-.07	.28**	-						
4. AG	2.03	0.43	.37**	-.09	-.01	-					
5. AC	2.50	0.47	.04	.21*	.33**	-.07	-				
6. SDH	3.93	1.07	.40**	-.01	.06	.23*	-.02	-			
7. SEH	4.55	1.12	-.35**	.47**	.31**	-.12	.13	.08	-		
8. AFH	5.69	0.90	-.17*	.65**	.26**	.06	.05	.19*	.51**	-	
9. AGH	3.34	0.90	-.13	.14	.11	.26**	-.06	.16*	.26**	.29**	-
10. SR	4.22	0.48	-.19**	.53**	-.05	.01	.11	-.03	.18*	.34**	.14

*Note.* \* $p < .05$ , \*\* $p < .001$ . NE = Neuroticism, EX = Extraversion, SS = Sensation-seeking, SDH = Self-destructive humor, SEH = Self-enhancing humor, AFH = Affiliative humor, AGH = Aggressive humor, SR = Social relationships.

**Table 2***Linear model predicting social relationships (N = 189)*

Variable	<i>b</i>	<i>SE b</i>	$\beta$	<i>R</i> <sup>2</sup>	$\Delta R^2$
Model 1				.163**	
Affiliative	.20**	.04	.38**		
Self-Enhancing	.00	.03	.00		
Aggressive	.05	.04	.09		
Self-Defeating	-.05	.03	-.11		
Model 2				.346**	.183
Affiliative	.07	.05	.13		
Self-Enhancing	-.05	.03	-.11		
Aggressive	.08*	.04	.15*		
Self-Defeating	-.02	.03	-.04		
Aggression	.02	.08	.02		
Sensation	-.05*	.02	-.19*		
Activity	.16*	.07	.15*		
Extraversion	.50**	.09	.48**		
Neuroticism	-.05	.07	-.05		

Note. \* $p < .05$   $p < .001$ \*\*.

### **Prediction 1a: Positive humor styles will have more social interactions.**

In testing if positive humor styles have more social interactions, a spearman correlation was performed (see table 1). As predicted the correlation showed a low positive correlation between social relations and self-enhancing humor,  $\rho(187) = .18, p = .011$ . There was a moderate positive correlation between social relations and affiliative humor,  $\rho(187) = .34, p < .001$ .

### **Prediction 1b: Humor styles will predict social relationships, even after controlling for personality traits.**

In testing prediction 1b, a hierarchical regression was preformed (see table 2).

Humor (model 1) explained 16% of the variance ( $R^2 = .163, p < .001$ ) in social relations.

When personality was added (model 2) the model explained 35% of the variance ( $\Delta R^2 = .18, R^2 = .346, p < .001$ ). Affiliative humor was the strongest predictor in model 1,  $\beta = .38, p < .001$ . None of the other humor-styles was significant in model 1. Extraversion was the strongest predictor in model 2,  $\beta = .48, p < .001$ . Followed by sensation seeking,  $\beta = -.19, p = .005$ , activity,  $\beta = .15, p = .030$  and aggressive humor,  $\beta = .14, p = .039$ . Affiliative humor became non-significant in model 2,  $p = .147$ . Aggressive humor became significant in model 2,  $p = .039$ .

**Prediction 2a: Individuals who score high on extraversion will use more affiliative humor.**

In testing prediction 2a, a Spearman correlation was performed (see table 1). As expected, it was a high positive correlation between extraversion and affiliative humor,  $\rho(187) = .65, p < .001$ .

**Prediction 2b: Individuals who score high on neuroticism will use more self-defeating humor.**

In testing prediction 2b, a Spearman correlation was performed (see table 1). As predicted, it was a moderate positive correlation between neuroticism and self-defeating humor,  $\rho(187) = .40, p < .001$ .

## **DISCUSSION**

Overall hypothesis one was supported, where humor-styles had different outcome on social relations. Prediction 1a showed that the positive humor-styles (affiliative and self-enhancing) was associated with higher frequency of social interactions. Affiliative humor showed a moderate positive correlation with social relations, indicating that this humor style is related to higher frequency of social interactions. Self-enhancing humor showed a mild

positive correlation with social relations, indicating that this humor style additionally is related to higher frequency of social interactions. The results in testing prediction 1b, showed that both humor-styles and personality predicted social relations. However only affiliative humor was significant in model 1. Affiliative humor became non-significant when personality was added, and aggressive humor became significant. The variance explained increased by 18% when personality was added. Even though the explained variance did not increase rapidly, extraversion was the strongest predictor, indicating that personality better predict frequency of social relations. Hypothesis two was supported, where personality traits was associated with humor-styles. The results of prediction 2a, showed that extraversion was associated with affiliative humor and neuroticism was associated with self-defeating humor (prediction 2b).

It was predicted that humor-styles predict social relations, even after controlling for personality traits, prediction 1b was partly supported. How the prediction was partly supported, will be discussed further. Humor-styles explained 16% of the variance in social relations. When personality traits were added, the explanation increased to 35%. Affiliative humor was the only significant predictor in model 1, indicating that affiliative humor has biggest impact of the humor styles on social relations. However, aggressive humor became significant in model 2, and affiliative humor became non-significant. This indicates that the variance explained by affiliative humor, was better explained by personality. It is although surprising that affiliative humor became non-significant in model 2, as this humor-style is meant to enhance social relations (Martin et al., 2003). The humor-styles and personality traits might measure some of the same constructs, and therefore share relevant variance. For example, item 14 in ZKA-PQ/SF measuring extraversion, "I like to entertain others in social gatherings", is similar to the construct of affiliative humor. Therefore, extraversion might explain the aspects that affiliative humor predicted in model 1. Additionally, SRFS measures

frequency of different social interactions. The relationship between frequency and humor-styles have not previously been researched. It is however plausible that extraversion need for social contact, have a bigger impact on frequency of social relations, than humor-styles. Furthermore, the other significant personality traits, showed little effect compared to extraversion (see table 1). Additionally, aggressive humor became significant, indicating that aggressive humor predicts social relations even after controlling for personality traits. It is earlier noted that the distinction between positive and negative humor-styles may not be suitable.

Aggressive humor can for example be a strategy for negotiating one's position in a group (Leist & Muller, 2003). Additionally, aggressive humor and affiliative humor was positively correlated (see table 1), indicating overlapping aspects. This is consistent with previous research (Martin et al., 2003 ; Ruch & Heintz, 2014). Martin suggested that individuals who joke and laugh with others to enhance relations, also tend to engage in hostile humor (Martin et al., 2003, p. 59). The resemblance between affiliative and aggressive humor, is also according to their interpersonal nature (Ruch & Heintz, 2014, p. 4). Therefore, aggressive humor may be a humor-style that could enhance social relations. Research according to the humor-styles and well-being, show less negative effects by aggressive humor than self-defeating humor (Dyck & Holtzmann, 2013 ; Martin et al., 2003). Dyck & Holtzmann suggests, it may be individual differences according to the perception and use of aggressive humor. Furthermore, the HSQ do not include the context the humor is used, which can be seen as a limitation (Ruch & Heintz, 2014). Therefore, it is not possible to know which context our sample use different humor-styles. For example, one humor-style may be better fitted for people you already have a relationship to, where use of humor can be considered a risk (Kennison & Messer, 2019). What type of humor the recipient perceives as harmful, is therefore crucial to know, in the assessment on which humor-style is better fitted. Some

relationships may not perceive aggressive humor as something harmful. Furthermore, the SRFS measure different types of social interactions in one measurement. Aggressive humor may be perceived differently in different contexts, for example in digital interactions. As stated earlier, it is harder to interpretate the intentions by aggressive humor when the communication is on a digital platform (Steer et al., 2020). The SRFS measures different types of social interactions, including digital communication. The measurement does not exclude different interactions from one another, which could lead to less clear results. In our sample measuring both face-to-face interactions, and digital interactions, aggressive humor could be perceived more positive than in a sample only measuring face-to-face interactions. It is needed further research on aggressive humor, and how it can predict social relations in different contexts and samples.

Furthermore, activity and sensation-seeking were significantly predicting social relations. Activity positively predicted social relations, but to a relatively small extent compared to extraversion (see table 2). Individuals who score high on activity, have a need for general activity, which could include frequency of social interactions. However, the trait does not include descriptions on sociability. Activity is additionally associated with extraversion (see table 1). Sensation-seeking was negatively predicting social relations. This is surprising as the trait is associated with extraversion. It is possible that people who are experience seeking want more social interactions, as this can give more experiences and input. However, the trait does not include descriptions on sociability. Individuals who score high on sensation seeking tend to be impulsive and get easily bored (Zuckerman et al., 1993), which may make it harder to maintain social relationships. However, this subject is not previously researched, and it is therefore hard to get a definitive answer. It is therefore needed more research on the relationship between sensation-seeking and frequency of social interactions.

Similar effects have been found in predicting well-being, where humor-styles had little effect after controlling for personality traits (Ruch & Heintz, 2014). Well-being has earlier been associated with the humor-styles (Martin et al., 2003), where the “positive” humor styles were positively correlated, and the “negative” negatively correlated. Considering humor-styles having little effect after controlling for personality on well-being, and little effect on social relations in this sample, personality seems to have a greater effect on both well-being and social relations. Ruch and Heintz stated that humor-styles could have an effect on well-being but that they add little to already established measures (Ruch & Heintz, 2014, p. 8). Considering social relations being crucial for mental health and general well-being, this is interesting results. Overall humor-styles explained little of the variance in social relations, after controlling for personality traits. This does not mean that humor has no impact on frequency of social interactions, but that personality might explain the variance in social relations to a bigger extent, or personality and humor-styles are too closely linked. Furthermore, extraversion was the strongest predictor on social relations, which is plausible considering its sociable nature.

The results from hypothesis 2, can help further understand the results from prediction 1b. Overall hypothesis 2 was supported, as the humor-styles were associated with personality traits. Considering affiliative humor becoming non-significant after personality was controlled for, it is interesting to further understand the relationship between personality and humor. It was predicted that extraverts use more affiliative humor, based on previous research and an assumption that affiliative humor is a better strategy in maintaining and establishing social relations (Martin et al., 2003). Which humor-style extraverts use, could be an expression on which is most successful in social relations. Even though social relations are needed for both introverts and extraverts, this could be considered more important for an extravert (Lucas & Diener, 2000).

Extraversion have been linked to sensitivity to reward, making social interactions more rewarding (Lucas & Diener, 2000). This research has however focused on extraversion measured by NEO-PI-R. As previously stated, extraversion in both measurements is highly correlated, and therefore it is relevant to look at the empirical evidence from NEO-PI-R in this study. However, after further examination of the ZKA-PQ instrument, extraversion was not exclusively associated with sensitivity to reward (Aluja et al., 2013). Specifically, the sub-facet exhibitionism was positively correlated with sensitivity for reward, but not the trait as a whole (Aluja et al., 2013). However, the empirical evidence in all measurements, show a relationship between sensitivity to reward and extraversion. In our sample using ZKA-PQ/SF, it may be individual differences based on the exhibitionism score. Potentially the use of affiliative humor could be to engage in self-promotion as a form of communication.

Using a humor-style which enhances social relations, can be seen as a specially fitted strategy for individuals with bigger need for social interactions. Extraverts social warmth and sensitivity to reward, could lead to higher motivation to enhance positive emotions in others. Based on extraverts need for social contact, and sensitivity for reward, affiliative humor might come as a natural strategy for both intrapersonal and interpersonal achievements. Overall, the relationship between extraversion and affiliative humor is well established (Čekrljija et al., 2022 ; Mendiburo-Seguel et al., 2015). The constructs bear some of the same aspects, which is their interpersonal nature. Therefore, the constructs can be considered important for social relations.

Next it was predicted that neuroticism and self-defeating humor would be positively correlated. This prediction was confirmed with a moderate positive correlation. It is suggested that self-defeating humor is a form of denial of negative emotions (Martin et al., 2003). It's relationship with neuroticism is therefore not surprising, where people who score high on neuroticism tend to experience more negative emotions (Zuckerman et al., 1993), and self-

defeating humor could be a strategy for coping with negative emotions (Martin et al., 2003). However, it is not stated to be a good coping mechanism, where self-defeating humor is associated with anxiety and depression (Martin et al., 2003). Self-defeating humor was not predicting social relations (see table 2). However, neuroticism was negatively correlated to social relations, indicating that individuals who score high on neuroticism have fewer social interactions. Even though self-defeating humor was not correlated to social relations, in accordance with previous research and its strong relationship to neuroticism, it is plausible that self-defeating humor is not an effective strategy for social relations. This is in accordance with previous research, where self-defeating humor is associated with less social support (Martin et al., 2003). Furthermore, the descriptions of negative and positive humor-styles lead to predicting a positive correlation between the positive humor-styles and social relations.

The first prediction was supported, as positive humor-styles (affiliative and self-enhancing) were positively correlated with social relations. A moderate positive correlation was found between affiliative humor and social relations, and a mild correlation between self-enhancing humor and social relations. These results suggest that individuals who use positive humor styles have higher frequency of social interactions. The assumption was based on that humor is a social strategy, and positive humor-styles generally being a better strategy for interpersonal and intrapersonal achievements. Affiliative humor is used to enhance positive emotions in the recipient, making one-self attractive in social settings (Martin et al., 2003). The strong association between affiliative humor and social relations in this sample is consistent with the concept of affiliative humor, which is used to enhance positive emotions in the recipient and make oneself more attractive in social settings. In other words, affiliative humor can be seen as an efficient interpersonal mechanism.

Self-enhancing humor is considered as an intrapersonal mechanism compared to affiliative humor (Martin et al., 2003). Therefore, it is interesting to examine its positive effect

on social relations. It is stated earlier that intrapersonal humor can be directed interpersonal (Shiota et al., 2004). Self-enhancing humor can be seen as an emotional regulation strategy. Emotional control can be considered as a part of social skills, which can make one more attractive in social settings (Riggio, 1991). Having the ability to regulate oneself negative emotions, may also improve the ability to enhance positive emotions in others. Furthermore, affiliative humor and self-enhancing humor are positively correlated, which could indicate some overlapping aspects. Both humor-styles are associated with positive emotions, but where the positive emotions are directed is different. It seems like the ability to produce positive emotions, is related to the ability to enhance them in others. This is supported by Shiota, where the ability to enhance own positive emotions, is crucial for interpersonal aspects (Shiota et al., 2004). However affiliative humor had a stronger correlation with social relations, indicating that it is still more beneficial for social relations. The results however indicate that self-enhancing humor also have an effect on social relations. This is supported by previous research on quality aspects of socialization and self-enhancing humor (Dyck & Holtzmann, 2013 ; Leist & Müller, 2013 ; Martin et a., 2003).

### **LIMITATIONS, STRENGTHS, AND FURTHER RESEARCH**

The Social relations frequency scale have not been used in previous research or been validated. Additionally, the SRFS had an inner reability of,  $\alpha = .68$ , which can be considered relatively low. However, the value is close to  $.7$ , which is acceptable (Field, 2018). The SRFS measure different types of social interactions, which could have had an effect on the reability. Creating sub-facets for different types of socialization, could therefore be relevant for the final publication of the scale. Furthermore, the study does not measure social interaction satisfaction. Therefore, it is not possible to examine if the humor-styles are successful against individual desires and goals. The use of a measurement for *social interaction satisfaction* is

recommended for further research, where this would give further insight in the relationship between humor, personality, and social relations. Additionally, the inner reability on sensation-seeking showed a lower value than the original article,  $\alpha = .77$  to,  $\alpha = .57$ . The remaining reability measures showed appropriate values.

It is limited research on ZKA-PQ/SF and HSQ, which makes comparisons with the present results with empirical evidence difficult. However ZKA-PQ/SF is a validated instrument with good inner reability. Additionally this study further validates the ZKA-PQ/SF as it has similar findings as empirical evidence in NEO-PI-R.

As stated earlier a non-parametric correlation was chosen, based on not normally distributed test-variables. Although it is not needed for the statistical analysis, it has an impact on the generalizability of the study. The sample was also limited to only students, as the remaining sample was too inconsistent to be appropriately representative for the general population. This is a strength in comparing the results with previous research, as a lot of empirical evidence is based on students. However, this could make the results non representative for different age groups and professions.

The study employed important results on the relationship between personality, humor, and frequency of social interactions. This brings valuable information on the effect humor and personality has on frequency, as previous research has not researched the relationship between humor and frequency.

## CONCLUSION

Overall, the study shows a strong relationship between humor, personality, and social relations. Previous research has examined the relationship between quality aspects of socialization, this study gives valuable insights in the effect humor and personality has on *frequency* of social relations. The results showed that both personality and humor predicted

frequency of social interactions, with personality and extraversion explaining most of the variance in social relations. The positive humor-styles were associated with higher frequency of social relations, indicating that positive humor-styles are an appropriate strategy for interpersonal achievements. The findings on positive humor-styles are in accordance with previous research on quality aspects of socialization (Dyck & Holtzmann, 2000 ; Leist & Müller, 2013 ; Martin et a., 2003). Additionally, personality and humor were associated, in accordance with previous research (Čekrljija et al., 2022 ; Mendiburo-Seguel et al., 2015), affiliative humor and extraversion had a strong relationship, and self-defeating humor was associated with neuroticism. Further research should examine the effect humor and personality have on social relations and implement measures for both quantity and quality. Additionally, controlling for social interaction satisfaction, to further examine which humor-styles and personality is better fitted for different desires and outcomes.

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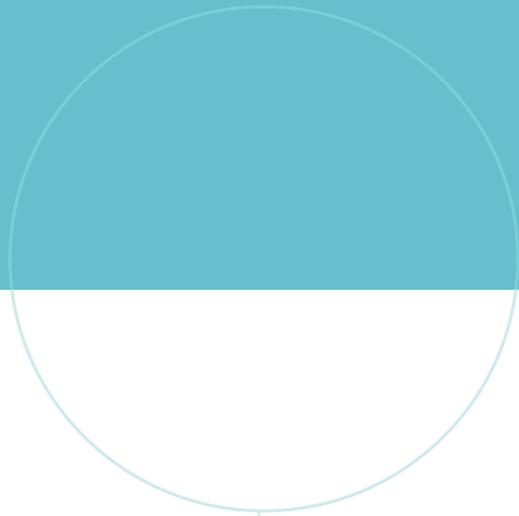
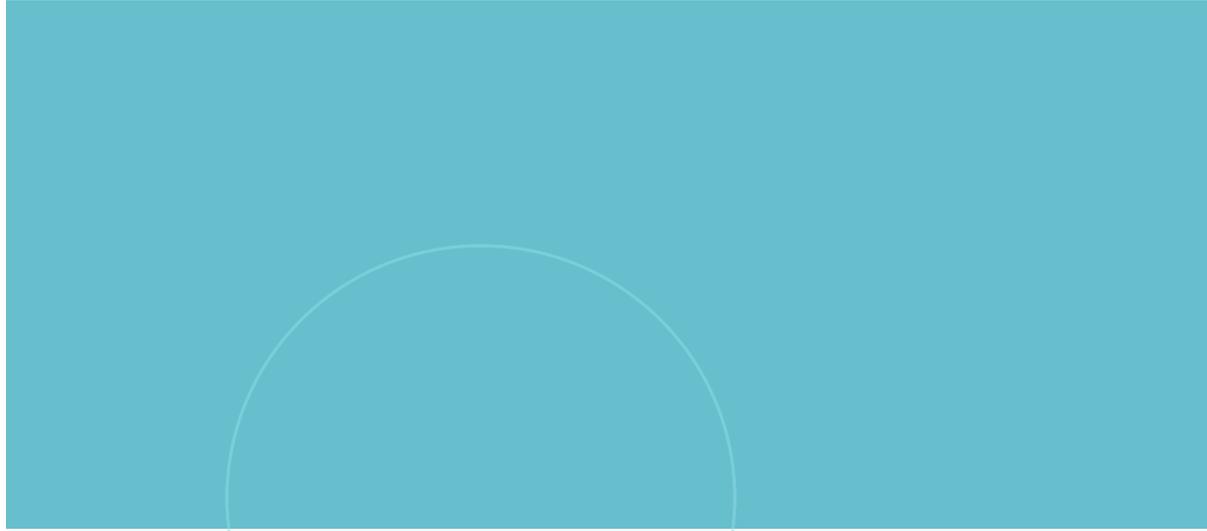
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